

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF SOUTH CAROLINA  
DIVISION OF ROCK HILL**

EOS GmbH ELECTRO OPTICAL SYSTEMS,	:	
	:	Civil Action No. 0:08-CV-1830-CMC
Plaintiff,	:	
v.	:	District Judge Cameron McGowan Currie
	:	
MCP TOOLING TECHNOLOGIES, LTD. and	:	
MCP HEK TOOLING GmbH,	:	
	:	
Defendants.	:	

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**DEFENDANTS' ANSWER TO COMPLAINT,  
AFFIRMATIVE DEFENSES, COUNTERCLAIMS**

Defendants MTT Technologies Limited (formerly MCP Tooling Technologies, Ltd.) and MTT Technologies GmbH (formerly MCP HEK Tooling GmbH) (collectively "MTT"), by their attorneys, as for their answer to the complaint of plaintiff EOS GmbH Electro Optical Systems ("EOS"), state as follows:

**JURISDICTION AND VENUE**

1. MTT admits that this is a civil action arising under the patent laws of the United States of America, Title 35 of the United States Code § 1 *et seq.* and that district courts have federal question and subject matter jurisdiction of such actions under 28 U.S.C. §§ 1331 and 1338, but denies that this court has personal jurisdiction over MTT.

2. Denied.

**PARTIES**

3. MTT lacks knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3 of the complaint, and therefore denies such allegations.

4. MTT admits that defendant MTT Technologies Limited (formerly MCP Tooling Technologies, Ltd.) is an entity organized and existing under the laws of the United Kingdom and has its principal place of business at Whitebridge Way, Whitebridge Park, Stone, Staffordshire ST15 8LQ, England, and admits that defendant MTT Technologies GmbH (formerly MCP HEK Tooling GmbH) is an entity organized and existing under the laws of Germany and having its principal place of business at Roggenhorster Straße 9C, 23565, Lübeck, Germany, and having a SLM Tech Center at Hauptstrasse 35, D-33178 Borchten, Germany. MTT denies the remaining allegations of paragraph 4 of the complaint.

**INFRINGEMENT OF U.S. PATENT NO. 5,753,171**

5. MTT admits that United States Patent No. 5,753,171 ("the '171 patent") is entitled "Method And Apparatus For Producing A Three-Dimensional Object" and that a copy of the cover page of the '171 patent was attached to the complaint as Exhibit A, but denies the remaining allegations of paragraph 5 of the complaint.

6. MTT lacks knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 6 of the complaint that "[t]he '171 patent is owned by EOS, has been owned by EOS at all times relevant herein, and EOS possesses all rights thereunder," and therefore denies such allegations. MTT denies the remaining allegations contained in paragraph 6 of the complaint.

7. MTT admits that 3D Systems Corporation ("3D Systems") has a place of business at 333 Three D Systems Circle, Rock Hill, South Carolina, 29730, that there was a press release on 3D Systems' website entitled "3D Systems Launches Two Direct Metal Laser Sintering Systems based on MCP Tooling Technologies," which press release speaks for itself; and that the Sinterstation® Pro DM100 and DM250 SLM Systems can create three-dimensional objects.

MTT lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations contained in paragraph 7 and therefore denies such allegations.

8. Denied.

9. Denied

10. Denied.

11. Denied.

#### **AFFIRMATIVE DEFENSES**

12. The Court lacks personal jurisdiction and venue over MTT Technologies Limited and MTT Technologies GmbH.

13. MTT does not infringe, and has not infringed, either literally or under the doctrine of equivalents, directly or indirectly by inducement or contributorily infringing, or in any other way, any valid or enforceable claim of the '171 patent.

14. The '171 patent is invalid under one or more sections of Title 35 of the U.S. Code, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112.

15. By virtue of amendments, arguments, and/or admissions made by and/or on behalf of the alleged inventors and/or owners of the '171 patent, EOS is barred by the doctrine of prosecution history estoppel from asserting infringement in this action under the doctrine of equivalents or otherwise.

16. The '171 patent is unenforceable for at least the reasons set forth in paragraphs 18 to 66 below, incorporated by reference herein.

17. EOS has committed patent misuse in asserting the '171 patent against MTT knowing the '171 patent to be invalid and not infringed by MTT for at least the reasons set forth in paragraphs 18 to 64 below, incorporated by reference herein.

**FIRST COUNTERCLAIM**  
**Declaration Of Noninfringement And Invalidity**

Defendant/counterclaim-plaintiffs MTT Technologies Limited (formerly MCP Tooling Technologies, Ltd.) and MTT Technologies GmbH (formerly MCP HEK Tooling GmbH) (collectively "MTT"), by their undersigned attorneys, counterclaim against counterclaim-defendant EOS GmbH Electro Optical Systems ("EOS") as follows:

18. This counterclaim is brought pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, and arises under the Patent Laws of the United States. 35 U.S.C. §§ 1 *et seq.*

19. This Court has jurisdiction over the subject matter of the counterclaim pursuant to 28 U.S.C. §§ 1331 and 1338(a).

20. Defendant/counterclaim-plaintiff MTT Technologies Limited is an entity organized and existing under the laws of the United Kingdom, having a principal place of business at Whitebridge Way, Whitebridge Park, Stone, Staffordshire ST15 8LQ, England.

21. Defendant/counterclaim-plaintiff MTT Technologies GmbH is a corporation organized and existing under the laws of Germany, having a principal place of business at Roggenhorster Straße 9C, 23565, Lübeck, Germany.

22. Upon information and belief, plaintiff/counterclaim-defendant EOS is an entity organized and existing under the laws of Germany and having its principal place of business in Krailling/Munich, Germany.

23. By virtue of the complaint filed on May 8, 2008 by EOS, an actual and justiciable controversy exists between MTT and EOS as to infringement, validity and enforceability of U.S. Patent No. 5,753,171 ("the '171 patent").

24. The '171 patent is invalid and void for failure to comply with one or more sections of Title 35 of the U.S. Code, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112.

25. In particular, at least independent claim 1 of the '171 patent is invalid as anticipated under 35 U.S.C. § 102(b) in view of EP 0515562 B1 to 3D Systems, Inc. ("the 3D Systems '562 EP patent").

26. The 3D Systems '562 EP patent was published on February 12, 1992, more than twelve months prior to the earliest claim of priority of the '171 patent of May 13, 1994. Therefore, the 3D Systems '562 EP patent is prior art to the '171 patent under U.S. patent law under 35 U.S.C. § 102(b).

27. Claim 1 of the '171 patent recites: "A method for producing a three-dimensional object using a material which is solidified under the action of electromagnetic radiation, said method comprising the following steps: a) producing a layer of said material; b) irradiating said layer with a beam of electromagnetic radiation at places corresponding to said object; c) varying a focus of said beam during said irradiation as a function of the solidifying place of said layer; and d) solidifying subsequent layers of said object according to above steps a) to c) to produce said three-dimensional object."

28. Each and every claim limitation of claim 1 is indisputably disclosed in the 3D Systems '562 EP patent.

29. The preamble to claim 1 of the '171 patent recites "A method for producing a three-dimensional object using a material which is solidified under the action of electromagnetic radiation." The 3D Systems '562 EP patent in paragraph [0001] recites: "This invention relates to a method of and apparatus for forming a three-dimensional article constituted by successively

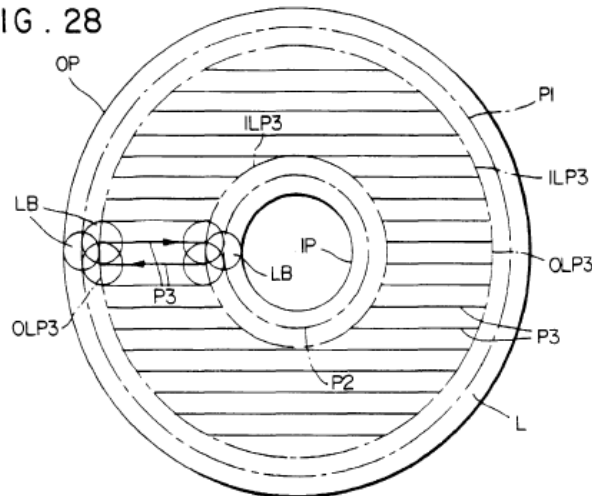
selectively solidified layers of a liquid medium solidifiable by application thereto of prescribed energy." The prescribed energy is discussed in paragraph [0054] of the 3D Systems '562 EP patent as "Other known types of energy sources, such as other forms of UV and visible light, invisible light, cathode ray tubes, electron beams, x-rays and other forms of radiation and/or high energy beams may also be used in this invention." These energy sources are sources of electromagnetic radiation. Therefore, the preamble of claim 1 of the '171 patent is anticipated by the 3D Systems '562 EP patent.

30. Claim limitation a) of claim 1 of the '171 patent recites "producing a layer of said material." The 3D Systems '562 EP patent discloses in paragraph [0009], for example, that "A layer of the liquid medium in the container is then produced above the fixed support ...," therefore anticipating limitation a).

31. Claim limitation b) of claim 1 of the '171 patent recites "irradiating said layer with a beam of electromagnetic radiation at places corresponding to said object." The second sentence of paragraph [0009] of the 3D Systems '562 EP patent, for example, states that "and a preselected cross-section of the layer is solidified by exposing at least a portion of the layer to prescribed energy in accordance with a design for the three-dimensional article," therefore anticipating limitation b).

32. Claim limitation c) of claim 1 of the '171 patent recites "varying a focus of said beam during said irradiation as a function of the solidifying place of said layer." The 3D Systems '562 EP patent includes Figure 28, below

FIG. 28



and recites in paragraph [0046] that "The layer periphery-defining paths P1 and P2 of the laser beam LB, and the layer inner portion-defining traversing paths P3 of the laser beam, also may be accomplished in any order, but preferably the outer and inner peripheries OP and IP of the layer L are defined after the layer inner portion traversing paths P3 have been completed. *If desired, the size of the laser beam LB also may reduced in diameter for the purpose of defining the outer and inner peripheries OP and IP of the layer L.*" (Emphasis added.) The diameter of the laser beam LB is synonymous with the focus of the beam since a change in diameter is produced by a change in focus. Since the inner and outer peripheries of the layer are solidifying places of the layer in Figure 28, the 3D Systems '562 EP patent clearly anticipates limitation c) that recites "varying a focus of said beam during said irradiation as a function of the solidifying place of said layer."

33. Claim limitation d) of claim 1 of the '171 patent recites "solidifying subsequent layers of said object according to above steps a) to c) to produce said three-dimensional object." This step is disclosed in the last sentence of paragraph [0010] of the 3D Systems '562 EP patent, which states: "Thereafter, the liquid medium level raising, liquid medium coating and liquid

medium solidifying operations, are repeated, as necessary, to complete the three-dimensional article." Accordingly, the 3D Systems '562 EP patent anticipates limitation d).

34. Because all limitations of claim 1 of the '171 patent are anticipated by the 3D Systems '562 EP patent, claim 1 of the '171 patent is invalid under 35 U.S.C. § 102(b). Additional dependent claims of the '171 patent that depend from claim 1 are similarly anticipated by the 3D Systems '562 EP patent and are invalid under 35 U.S.C. § 102(b).

35. MTT also does not infringe, induce infringement of, and/or contributorily infringe, and has not infringed, induced infringement of, and/or contributorily infringed any valid and enforceable claim of the '171 patent.

36. In particular, MTT does not infringe at least independent claims 12 and 16 of the '171 patent since these claims require a sensor for measurement of the electromagnetic radiation beam that is not present in the MTT accused products. Namely, claim 12 requires, among other limitations, the step of "d) *measuring a position, a power and/or a diameter of said beam* at a location above said layer to produce said three-dimensional object" and claim 16 requires, among other limitations, "*sensor means for measuring said focused beam*, said sensor means being arranged between said deflection means and said layer" (emphasis added).

37. MTT's accused products do not include a sensor for measuring the electromagnetic radiation beam and therefore lack at least step d) of claim 12 of "measuring a position, a power and/or a diameter of said beam at a location above said layer to produce said three-dimensional object" and lack "sensor means for measuring said focused beam, said sensor means being arranged between said deflection means and said layer" of claim 16.

38. Moreover, during prosecution of the '171 patent, these measuring and sensor claim limitations of claims 12 and 16 were specifically argued by EOS to the U.S. Patent and



Trademark Office ("USPTO") over prior art sensors and how they particularly measured the electromagnetic radiation beam.

39. Therefore, MTT does not and cannot infringe claims 12 and 16, either literally, or under the doctrine of equivalents, because MTT's accused products do not include a sensor, or any equivalent, for measuring the electromagnetic radiation beam. For at least these same reasons, MTT's accused products do not infringe any of the dependent claims that depend from independent claims 12 and 16 of the '171 patent.

**SECOND COUNTERCLAIM**  
**Federal Unfair Competition – Violation of**  
**Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a)**

40. MTT repeats and incorporates herein the entirety of paragraphs 18 to 39 above.

41. Upon information and belief, EOS was fully aware of the prior art 3D Systems '562 EP patent at least as early as 2005, well prior to filing the present lawsuit against MTT in 2008.

42. Namely, on information and belief, EOS is owner of European Patent No. EP 0758952 B1 (the "EOS EP patent"), which is a foreign counterpart patent to the '171 patent. On information and belief, EOS also owns German Patent DE 595 01 852.1 ("the EOS German patent"), which corresponds to the EOS EP patent.

43. At least two patent nullification proceedings have been filed in Germany against the EOS German patent. These include (1) a first nullification proceeding on February 27, 2004 by Concept Laser GmbH against claim 15, which was later extended to claim 16, of the EOS German patent and (2) a second nullification proceeding on December 14, 2005 by Concept Laser GmbH against claim 1 of the EOS German patent.

44. Upon information and belief, during the first nullification proceedings, EOS surrendered claim 15 and defended claim 16 only. Furthermore, by a decision of the German

Federal Patent Court dated March 8, 2005, claim 16 was fully revoked based on "lack of inventive step" and costs of the proceeding were fully apportioned against EOS.

45. Upon information and belief, in the second nullification proceeding, Concept Laser GmbH attacked claim 1 of the EOS German patent for lack of novelty based on two prior art patents, including the 3D Systems '562 EP patent. Upon information and belief, the second nullification proceeding was settled privately between Concept Laser GmbH and EOS on or about February 9, 2006 and the proceeding was then withdrawn.

46. Upon information and belief, neither the 3D Systems '562 EP patent, nor any of its counterparts, were cited to or by the United States Patent and Trademark Office during the prosecution of the '171 patent.

47. On information and belief, after learning of the prior art 3D Systems '562 EP patent, but before filing the present lawsuit against MCP, EOS knew or should have known that one or more of the claims of the '171 patent were invalid based at least on the prior art 3D Systems '562 EP patent and that any remaining claims were clearly not infringed by MTT's accused Sinterstation® Pro DM100 and DM250 SLM Systems.

48. Furthermore, on information and belief, prior to filing the present lawsuit, EOS knew or should have known that there are no sensors in MTT's accused Sinterstation® Pro DM100 and DM250 SLM Systems for measuring the electromagnetic radiation beam, and therefore, there could be no infringement by MTT's accused products of at least independent claims 12 and 16 and their dependent claims.

49. Notwithstanding this knowledge, EOS has falsely and in bad faith represented to the trade that MTT is infringing on its '171 patent.

50. For example, EOS issued a press release on May 16, 2008, announcing the patent law infringement lawsuit against MTT and accusing the MTT's Realizer product line of not being licensed in the United States and therefore infringing the '171 patent.

51. EOS's press release, found on its website, stated in part:

EOS files patent infringement lawsuit against MCP Tooling Technologies Ltd.  
and MCP-HEK Tooling GmbH in the US  
16.05.2008

EOS GmbH Electro Optical Systems, the worldwide leading manufacturer of laser-sintering systems, today announced that it has filed a patent infringement lawsuit in the United States District Court, South Carolina, against MCP Tooling Technologies Ltd. and MCP-HEK Tooling GmbH. The lawsuit alleges infringement of U.S. Patent No. 5,753,171 through the manufacture, sale and use of the Realizer product line from MCP in the US.

In February 2008, EOS and Trumpf had announced a patent license agreement with MCP. Under the agreement, MCP received a non-exclusive license for certain EOS patents, as well as some patent rights from Trumpf regarding the laser-sintering process. These patents are relevant to MCP's product line "Realizer". However, the license does not extend to the USA and Canada. 3D Systems and MCP then announced in the same month that the MCP Realizer would be distributed in the US. As a consequence, EOS filed the patent infringement lawsuit against MCP on May 8th, 2008. ...

[http://www.eos.info/en/news-events/press-releases/pressdetails/article/103/eos-files-pa.html?tx\\_ttnews%5Byear%5D=2008&tx\\_ttnews%5Bmonth%5D=05&cHash=1ec5377a65](http://www.eos.info/en/news-events/press-releases/pressdetails/article/103/eos-files-pa.html?tx_ttnews%5Byear%5D=2008&tx_ttnews%5Bmonth%5D=05&cHash=1ec5377a65)

52. The aforesaid false and misleading statements regarding allegations of infringement of the '171 patent and the need for a license to the '171 patent in the USA were made by EOS in bad faith because EOS knew or had reason to know that the '171 patent was invalid at least in view of the prior art 3D Systems '562 EP patent and/or not infringed by MTT's accused Sinterstation® Pro DM100 and DM250 SLM Systems.

53. In view of the prior art 3D Systems '562 EP patent and the lack of sensors in MTT's accused products for measuring the electromagnetic radiation beam, EOS's infringement

allegations are objectively baseless and no reasonable litigant could realistically expect success on the merits.

54. The aforesaid false and misleading statements, made in commercial advertising and promotion by EOS, about MTT's goods, actually deceive and/or are likely to deceive a substantial segment of the intended audience, including MTT's customers. Such deception is material in that it is likely to influence the purchasing decisions of customers of MTT's accused products who may decide not to purchase MTT's products if they are believed to be infringing the '171 patent based on EOS's statements.

55. EOS caused such false and misleading statements to enter interstate commerce when it issued its press release, which was placed into interstate commerce to be reprinted, and was reprinted at least by the following publications and websites: Laser Focus World (<http://www.laserfocusworld.com/articles/328992>) on May 19, 2008; Castle Island's Worldwide Guide to Rapid Prototyping (<http://home.att.net/~drdipstik/inr/inr240.htm>) on May 19, 2008; Industrial Laser Solutions ([http://www.industrial-lasers.com/display\\_article/329408/39/ONART/none/IndUp/EOS-files-patent-infringement-lawsuit-against-MCP-in-the-US?dcmp=rss](http://www.industrial-lasers.com/display_article/329408/39/ONART/none/IndUp/EOS-files-patent-infringement-lawsuit-against-MCP-in-the-US?dcmp=rss)) on May 21, 2008; Business Week/Business Exchange (<http://bx.businessweek.com/rapid-prototyping/rapid-tooling-eos-claims-patent-infringement-against-mcp/978313432201251/>) on May 22, 2008; and Fabricating & Metal Working ([http://www.fandmmag.com/web/online/Industry-News/EOS-Files-Patent-Infringement-Lawsuit-Against-MCP/1\\$1951](http://www.fandmmag.com/web/online/Industry-News/EOS-Files-Patent-Infringement-Lawsuit-Against-MCP/1$1951)) on July 8, 2008.

56. The aforesaid false and misleading statements were made by EOS results in actual and/or probable injury to MTT.

57. The aforesaid false and misleading statements of EOS, made in bad faith, constitute unfair competition and violate Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a).

**THIRD COUNTERCLAIM**  
**State Unfair Competition**  
**South Carolina Unfair Trade Practices Act**

58. MTT repeats and incorporates herein the entirety of paragraphs 18 to 57 above.

59. The statements of EOS provided in paragraph 53 above are false, deceptive, have the tendency to deceive, have the potential for repetition and have been repeated, and were made in bad faith, and constitute unfair methods of competition and unfair or deceptive trade practices in the conduct of trade or commerce under South Carolina's Unfair Trade Practices Act (UTPA), S.C. Code § 39-5-20(a) and elsewhere.

**FOURTH COUNTERCLAIM**  
**Common Law Unfair Competition**

60. MTT repeats and incorporates herein the entirety of paragraphs 18 to 59 above.

61. The aforementioned acts and material misrepresentations in bad faith by EOS are likely and intended to cause confusion or mistake or deceive and further constitute unfair competition and unfair business practices contrary to the common laws of the State of South Carolina.

62. The aforesaid acts by EOS were committed willfully, knowingly, maliciously, and in conscious disregard of MTT's rights.

63. The aforesaid acts by EOS have caused, and unless restrained by this Court will continue to cause, immediate and irreparable injury to MTT's property and business.

64. MTT has no adequate remedy at law.

**PRAYER FOR RELIEF**

WHEREFORE, MTT prays for judgment in its favor as follows:

A. Dismissal of the complaint against MTT with prejudice;

B. A declaration that MTT has not infringed, induced infringement of, or contributorily infringed, and does not infringe, induce infringement of, and/or contributorily infringe any valid or enforceable claim of U.S. Patent No. 5,753,171;

C. A declaration that U.S. Patent No. 5,753,171 is invalid and void for failure to comply with one or more sections of Title 35 of the U.S. Code, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112;

D. A declaration that U.S. Patent No. 5,753,171 is unenforceable;

E. A declaration that EOS has committed patent misuse in asserting U.S. Patent No. 5,753,171;

F. A declaration that this case is "exceptional" within the meaning of 35 U.S.C. § 287;

G. An award to MTT of its costs, attorneys fees, and expenses, including but not limited to pursuant to 35 U.S.C. § 285 and 28 U.S.C. § 1927;

H. A declaration that EOS has violated Section 43(a) of the Lanham Act, 15 U.S.C § 1125(a);

I. A declaration that EOS has violated South Carolina's Unfair Trade Practices Act (UTPA), S.C. Code § 39-5-20(a);

J. A declaration that EOS has committed acts of unfair competition and unfair business practices contrary to the common law of the State of South Carolina; and

K. An award to MTT of all further and additional relief as the Court deems just and proper.

Respectfully submitted,

Attorneys for Defendants

Date: November 3, 2008

/s/ Steven R. LeBlanc

Steven R. LeBlanc (Fed. ID #7000)

Tim F. Williams (Fed. ID #6276)

DORITY & MANNING, P.A.

P.O. Box 1449

Greenville, S.C. 29602-1449

Tel: 864-271-1592

Fax: 864-233-7342

[srl@dority-manning.com](mailto:srl@dority-manning.com)

[timw@dority-manning.com](mailto:timw@dority-manning.com)

Sidney David

Jonathan A. David

Lerner, David, Littenberg, Krumholz  
& Mentlik, LLP

600 South Avenue West

Westfield, NJ 07090

Tel: (908) 654-5000

Fax: (908) 654-7866

[sdavid@ldlkm.com](mailto:sdavid@ldlkm.com)

[jdavid@ldlkm.com](mailto:jdavid@ldlkm.com)

**Certificate of Service**

I hereby certify that on November 3, 2008, I electronically filed DEFENDANTS' ANSWER TO COMPLAINT, AFFIRMATIVE DEFENSES, COUNTERCLAIMS with the Clerk of the Court using the CM/ECF system which will automatically send e-mail notification of such filing to the following attorney of record:

John C. McElwaine (Fed. ID #6710)  
Jennifer H. Thiem (Fed. ID #9797)  
Nelson Mullins Riley & Scarborough, LLP  
151 Meeting Street / Sixth Floor  
Post Office Box 1806 (29402)  
Charleston, SC 29401-2239  
Tel: 843-853-5200  
Fax: 803-255-9831  
[john.mcelwaine@nelsonmullins.com](mailto:john.mcelwaine@nelsonmullins.com)

November 3, 2008

/s/ Steven R. LeBlanc  
Steven R. LeBlanc (Fed. ID #7000)  
Tim F. Williams (Fed. ID #6276)  
DORITY & MANNING, P.A.  
P.O. Box 1449  
Greenville, S.C. 29602-1449  
Tel: 864-271-1592  
Fax: 864-233-7342